Sheng Tai (Ted) Tsao

## Abstraction

Supporting multiple users concurrent login and providing each user to be able to perform multiple concurrent tasks in his/her computer work environment are very critical to modern computer user working environment, which is running on top of modern operating system, due to it greatly improved machine efficiency and user's productivities. Therefore, supporting multiple users concurrent login CCDSVM through each user's web-browser and providing each user to be able to perform multiple concurrent tasks in his/her single login web-browser over resources of CCDSVM will qualify the conventional web-browser to be a new means of a computer user working environment at the Internet era.

To support one or multiple users to perform multiple concurrent tasks within a single web-browser for system like CCDSVM, the software modules on systems of CCDSVM require to work and communicate together to collect resource information of CCDSVM, and to display them in each user's web-browser, and further to allow each user selecting the resource, initiating and submitting the tasks from said single web-browser; the software of CCDSVM needs to store each received task information into a user space task list and further to distribute each task to the target system for executing. In addition, software of CCDSVM needs to obtain associated conventional or non-conventional locks for each task and properly release these acquired locks one at a time in the order during each tasks executing up to the point when the tasks are finished.